IN THE CLAIMS:

The pending claims are listed below.

1. (Cancelled)

2. (Withdrawn) A data transmission method, comprising:

first determining communication groups;

second determining a group priority order;

first transmitting at least one capacity request message from a subscriber station;

granting a capacity subscriber station-specifically by a base station;

second transmitting at least one capacity grant message from the base station;

scheduling connections by the subscriber station based on the communication groups, the group priority order and the granted capacity;

third transmitting from the subscriber station at least one message, wherein the at least one message comprises information based on previous capacity requests;

fourth transmitting data from the subscriber station, wherein the data is related to a connection scheduling; and

monitoring by the base station of at least one of capacity request messages, capacity grant messages and received transmissions.

3. (Withdrawn) The method of claim 2, wherein the first determining comprises determining the communication groups based on connection quality demands.

4. (Withdrawn) The method of claim 2, wherein the second determining comprises defining the group priority order based on connection quality demands.

5. (Withdrawn) The method of claim 2, wherein the first determining comprises determining the communication groups comprising a service class selected from at least one of unsolicited grant service, real-time polling service, non-real-time polling service and non-unsolicited grant service.

6-10. (Cancelled)

11. (Withdrawn) A communication system, the system comprising:

grouping means for grouping connections into predetermined communication groups;

first transmitting means for transmitting capacity request messages;

granting means for granting a capacity subscriber station-specifically;

second transmitting means for transmitting capacity grant messages;

scheduling means for scheduling connections based on the communication groups, a predetermined group priority order and the granted capacity;

third transmitting means for transmitting messages, wherein the messages comprise information based on previous capacity requests;

fourth transmitting means for transmitting data according to a connection scheduling; and

monitoring means for monitoring at least one of the request messages, the capacity grant messages and received transmissions.

12. (Withdrawn) The system of claim 11, wherein the communication groups are arranged into a priority order.

13. (Withdrawn) The system of claim 11, wherein the communication groups comprise a service class selected from at least one of unsolicited grant service, real-time polling service, non-real-time polling service and non-unsolicited grant service .

14-16. (Cancelled)

17. (Previously Presented) An apparatus, comprising:

granting means for granting a transmission capacity subscriber station-specifically;

transmitting means for transmitting capacity grant messages to at least one subscriber station; and

monitoring means for monitoring capacity request messages received from the at least one subscriber station, capacity grant messages sent by a base station and data transmissions received from the at least one subscriber stations.

18. (Previously Presented) The apparatus of claim 24, wherein the monitor is configured to monitor data based on messages and transmissions using a memory table.

19. (Previously Presented) The apparatus of claim 24, wherein the processor is further configured to avoid a mismatch between a granted capacity and data received from a subscriber station using information based on request messages, capacity grant messages and received transmissions.

20. (Previously Presented) An apparatus, comprising:

first transmitting means for transmitting capacity request messages of at least one connection;

receiving means for receiving capacity grant messages from a base station;

allocating means for connection-specifically allocating a capacity granted by the base station;

second transmitting means for transmitting messages, wherein the messages comprise information based on previous capacity requests of a subscriber station; and

third transmitting means for transmitting data according to a capacity allocation made by the subscriber station.

21. (Withdrawn) A subscriber station, comprising:

a first transmitting unit configured to transmit capacity request messages of at least one connection;

a grouping unit configured to group connections into predetermined communication groups;

a scheduling unit configured to schedule the connections based on the predetermined communication groups, a predetermined group priority order and a capacity granted by a base station;

a second transmitting unit configured transmit messages wherein the messages comprise information based on previous capacity requests; and

a third transmitting unit configured to transmit data according to a connection scheduling.

22. (Withdrawn) The subscriber station of claim 21, wherein the communication groups comprise a service class selected from at least one of unsolicited grant service, real-time polling service, non-real-time polling service and non-unsolicited grant service.

23. (Withdrawn) The subscriber station of claim 21, further comprising:

a fourth transmitting unit configured to transmit update messages comprising information based on the previous capacity requests, wherein the update messages replace at the base station previous information on the connection.

24. (Previously Presented) An apparatus, comprising:

a receiver configured to receive capacity request messages from at least one subscriber station; and

a processor configured to,

grant a transmission capacity subscriber station-specifically,

transmit capacity grant messages to the at least one subscriber station, and

monitor request messages received from the at least one subscriber stations, capacity grant messages sent by a base station and data transmissions received from the at least one subscriber station.

25. (Previously Presented) An apparatus, comprising:

a transmitter configured to transmit capacity request messages of at least one connection; and

a processor configured to,

allocate connection-specifically a capacity granted by a base station,

transmit messages wherein the messages comprise information on previous capacity requests, and

transmit data from a subscriber station according to a capacity allocation made by the subscriber station.

26-55. (Canceled)

56. (Previously Presented) A method, comprising:

transmitting capacity request messages of at least one connection;

receiving capacity grant messages from a base station;

connection-specifically allocating a capacity granted by the base station;

transmitting messages, wherein the messages comprise information based on previous capacity requests of a subscriber station; and

transmitting data according to a capacity allocation made by the subscriber station.

57. (Withdrawn) A method, comprising:

transmitting capacity request messages of at least one connection;

grouping connections into predetermined communication groups;

scheduling the connections based on the predetermined communication groups, a predetermined group priority order and a capacity granted by a base station;

transmitting messages wherein the messages comprise information based on previous capacity requests; and

transmitting data according to a connection scheduling.

58. (Previously Presented) The method of claim 56, wherein the transmitting comprises transmitting an update message that replaces at the base station a previous information connection-specifically.

59. (Previously Presented) The method of claim 56, wherein the transmitting comprises transmitting an update message that replaces information based on a need for bandwidth for a connection.

60. (Previously Presented) The method of claim 56, further comprising:

transmitting update messages comprising information based on previous capacity requests, wherein the update messages replace at the base station previous information on a connection.

61. (Previously Presented) A method, comprising:

granting a transmission capacity subscriber station-specifically;

transmitting capacity grant messages to at least one subscriber station; and

monitoring capacity request messages received from the at least one subscriber station, capacity grant messages sent by a base station and data transmissions received from the at least one subscriber stations.

62. (Previously Presented) The method of claim 61, further comprising:

monitoring data based on messages and transmissions using a memory table.

63. (Previously Presented) The method of claim 61, wherein the monitoring comprises using information based on the request messages, the capacity grant messages and the received transmissions for avoiding a mismatch between a granted capacity and data received from a subscriber station.

64. (Previously Presented) A computer program embodied on a computer-readable medium, the computer program configured to control a processor to perform operations comprising:

transmitting capacity request messages of at least one connection;

receiving capacity grant messages from a base station;

connection-specifically allocating a capacity granted by the base station;

transmitting messages, wherein the messages comprise information based on previous capacity requests of a subscriber station; and

transmitting data according to a capacity allocation made by the subscriber station.

65. (Previously Presented) The computer program of claim 64, further comprising:

transmitting update messages comprising information based on previous capacity requests, wherein the update messages replace at the base station previous information on a connection.

66. (Previously Presented) A computer program embodied on a computer-readable medium, the computer program configured to control a processor to perform operations comprising:

transmitting capacity request messages of at least one connection;

granting a transmission capacity subscriber station-specifically;

transmitting capacity grant messages to at least one subscriber station; and

monitoring capacity request messages received from the at least one subscriber station, capacity grant messages sent by a base station and data transmissions received from the at least one subscriber stations.

67. (Previously Presented) The computer program of claim 66, further comprising:

receiving update messages comprising information based on previous capacity requests, wherein the update messages replace previous information on a connection.

68. (Previously Presented) The apparatus of claim 17, wherein the monitoring means monitors data based on messages and transmissions using a memory table.

69. (Previously Presented) The apparatus of claim 17, further comprising:

avoiding means for avoiding mismatch between a granted capacity and data received from a subscriber station using information based on the request messages, the capacity grant messages and the received transmissions.

70. (Previously Presented) The apparatus of claim 20, further comprising:

fourth transmitting means for transmitting update messages comprising information based on previous capacity requests, wherein the update messages replace at the base station previous information on a connection.

71. (Previously Presented) The apparatus of claim 20, further comprising:

means for transmitting update messages comprising information based on previous capacity requests, wherein the update messages replace at the base station previous information on a connection.

72. (Previously Presented) The apparatus of claim 24, the processor further configured to avoid a mismatch between a granted capacity and data received from a subscriber station using information based on request messages, capacity grant messages, and received transmissions.

73. (Previously Presented) The apparatus of claim 25, wherein the transmitter is further configured to transmit update messages comprising information based on previous capacity requests, wherein the update messages replace at the base station previous information on a connection.